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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,818	01/04/2001	Toshihiko Higuchi	81754.0048	3513

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EXAMINER

CAO, PHAT, X

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,818

Applicant(s)

HIGUCHI, TOSHIHIKO

Examiner

Phat X. Cao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 21-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

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DETAILED ACTION

1. The Request for Continued Examination filed 5/13/03 in Paper No. 15 is acknowledged.
2. The indicated allowability of claims 7-11 and 21-26 is withdrawn in view of the newly discovered reference(s) to Kohyama and Dawson et al. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

3. Claims 1-6, 7-11 and 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- in claim 1, line 6, and claim 2, line 2, "a specified separation" is unclear because the claim language does not define which separation is considered as "a specified separation"

- claims 3-6 are rejected because they depend on claim 1.

- in claims 7-11, "a minimum inter-wiring separation" is unclear because the claim language does not specify the distance which is considered as a minimum separation. Therefore, for the examination purpose, the distance between the two adjacent wirings is considered as "a minimum inter-wiring separation".

- claims 21-26 are rejected because they depend on claims 7 and 8.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6-11, 12-14, 21-23 and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kohyama (US. 5,616,961).

Kohyama (Figs. 1 and 2) discloses a semiconductor device having a wiring pattern, comprising: a contact section 105 formed in an interlayer dielectric layer 103; a first wiring 106-2 formed over the interlayer dielectric layer 103 and disposed with a minimum inter-wiring separation with respect to the contact section 105; and a second wiring 106-1 having a connection region to be connected to the contact section 105 and extending in parallel with the first wiring 106-2, wherein the connection region of the second wiring 106-1 has a generally square plan configuration, the second wiring 106-1 has an extension is disposed on sides of the connection region other than sides thereof facing the first wiring 106-2. Kohyama's Fig. 1 further discloses the extension section having an identical width as a width of the wiring 106-1 and the connection region having dimensions that are greater than the dimensions of the contact section 105.

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Regarding process limitation (formed by etching ... using a resist pattern as a mask), these would not carry patentable weight in a claim drawn to structure because distinct structure is not necessarily produced. In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

6. Claims 1-4, 6-11, 12-14, 21-23, and 25-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Dawson et al (US. 5,783,864).

Dawson (Figs. 1 and 2) discloses a semiconductor device having a wiring pattern, comprising: a contact section 18C formed in an interlayer dielectric layer 22; a first wiring 12b formed over the interlayer dielectric layer and disposed with a minimum inter-wiring separation with respect to the contact section 18c; and a second wiring 12a having a connection region to be connected to the contact section 18c and extending in parallel with the first wiring 12b, wherein the connection region of the second wiring 12a has a generally square plan configuration, the second wiring 12a has an extension section is disposed on sides of the connection region other than sides thereof facing the first wiring 12b. Dawson's Fig. 1 further discloses the extension section having an identical width as a width of the wiring 12a, and the connection region having dimensions that are greater than the dimensions of the contact section 18c.

Regarding process limitation (formed by etching ... using a resist pattern as a mask), these would not carry patentable weight in a claim drawn to structure because distinct structure is not necessarily produced. In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 1-14 and 21-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Geryk (US. 6,166,441) - previous cited).

With respect to claims 1-3, 6-12, 13, 21-22 and 25-26, Geryk (Fig. 5) discloses a semiconductor device having a wiring pattern, comprising: a contact section 420 formed in an interlayer dielectric layer (not illustrated, see Fig. 6); a first wiring 540 formed over the interlayer dielectric layer and disposed with a minimum inter-wiring separation with respect to the contact section 420; and a second wiring 550 having a connection region to be connected to the contact section 420 and extending in parallel with the first wiring 540, wherein the connection region of the second wiring 550 has a generally square plan configuration, the second wiring 550 has an extension section extending in a non-wiring region in the connection region (see copy of Figs. 4 and 5 of Geryk attached to this Office action for clarification), and the extension section is disposed on sides of the connection region other than sides thereof facing the first wiring 540.

With respect to claims 4-5, 14, 23 and 24, Geryk's Fig. 4 also discloses the wiring 410 is formed from the connection region and has extension sections on four sides of the connection

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region, wherein the extension section has an extension length identical with the width of the wiring.

Response to Arguments

9. Applicant's arguments with respect to the claimed invention have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phat X. Cao whose telephone number is (703) 308-4917. The Examiner can normally be reached on Monday through Thursday. If attempts to reach the Examiner by telephone are unsuccessfully, the Examiner's supervisor, Wael Fahmy, can be reached on (703) 308-4918.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956. Group 2800 fax number is (703) 308-7722 or (703) 308-7724.

PC
June 13, 2003


PHAT X. CAO
PRIMARY EXAMINER